

## STATEMENT OF THE PROBLEM

### 1. Agency Caucus: NMFS, FWS, MMC, NSF, CCC, Navy, MMS

#### STATEMENT OF THE PROBLEM:

Large uncertainties in all areas of the issue fuel public controversy

Stranding causes (acute and systemic)

Behavioural responses of different species

Effectiveness of management and mitigation

Difficult to assess population-level effects (use individual-level effects as surrogate)

Acute problems with beaked whales and mid-frequency sonar

Potential impacts of environmental compliance and uncertainties to (1) research, (2) security, and (3) economics.

### 2. Environmental NGOs caucus

#### Problem Statement:

There is compelling evidence that increasing levels of anthropogenic sound are adversely affecting marine mammals. Therefore there is an urgent need for precautionary management. Marine mammals are difficult to study and rely heavily on sound; in addition, the marine environment is complex, and population effects are difficult to detect. While research is needed to refine management, action cannot wait for scientific certainty. Various international bodies have acknowledged all of this in recent years.

### 3. Research caucus

#### Statement of problem:

Marine mammals are acoustic specialists.

We know *individual* animals can be adversely affected by exposure to anthropogenic sound.

Adverse effects of anthropogenic sound on marine mammal *populations* have not been scientifically demonstrated:

“No scientific studies have conclusively demonstrated a link between exposure to sound and adverse effects on a marine mammal *population*. These considerations have led to alternative assessments of the effects of sound on marine mammals. On the one hand, sound may represent only a second order effect on the conservation of marine mammal *populations*; on the other hand, what we have observed so far may be only the first early warnings or “tip of the iceberg” with respect to sound and marine mammals.” NRC 2005

#### 4. Industry caucus (Oil and gas, shipping)

##### **Overall Perspective**

We believe in a balanced and protective approach that takes into consideration species, activities and interests commensurate with the level of risk such as the “multiple use management” approach recommended in the USCOP *Ocean Blueprint for the Twenty-First Century*. Multiple use management balances competing uses while preserving and protecting the overall integrity of the ocean and coastal environments.

##### **Industry statement of the problem:**

Marine mammals are potentially affected by sounds generated in the oceans

Compared to other anthropogenic impacts on marine mammals, we believe sound is a second order effect

No scientific studies have conclusively demonstrated a link between exposure to sound and adverse impacts on a marine mammal population. (NRC '05)

For sounds generated by industry:

There are no known injuries to marine mammals

There are no known behavioral effects that have led to population level impacts.

There is disagreement as to the extent of the problem among other stakeholders.